

In the claims:

1-25. (Canceled)

26-71. (Canceled)

72. (New): An isolated antibody, or portion thereof, that specifically binds to a polypeptide selected from the group consisting of:

a) a polypeptide comprising an amino acid sequence which is at least 95% identical to the amino acid sequence of SEQ ID NO:11, wherein said polypeptide has an activity selected from the group consisting of an aminotransferase activity, peptidyl lysine oxidation, oxidative deamination of lysine, and copper binding; and

b) a polypeptide encoded by a nucleic acid molecule comprising a nucleotide sequence which is at least 95% identical to the nucleotide sequence of SEQ ID NO:10 or SEQ ID NO:12, wherein said polypeptide has an activity selected from the group consisting of an aminotransferase activity, peptidyl lysine oxidation, oxidative deamination of lysine, and copper binding.

73. (New): The antibody, or portion thereof, of claim 72, wherein the antibody is selected from the group consisting of:

- i) a monoclonal antibody;
- ii) a polyclonal antibody;
- iii) a human antibody;
- iv) a humanized antibody;
- v) a chimeric antibody; and
- vi) a murine antibody.

74. (New): The antibody, or portion thereof, of claim 72, wherein the portion is a F(ab) fragment or a F(ab')<sub>2</sub> fragment.

75. (New): The antibody, or portion thereof, of claim 72, wherein the antibody binds to amino acid residues 463-732 of SEQ ID NO:11.

76. (New): The antibody, or portion thereof, of claim 72, wherein the antibody binds to amino acid residues 26-753 of SEQ ID NO:11.

77. (New): The antibody, or portion thereof, of claim 72, wherein the antibody is detectably labeled.

78. (New): The antibody, or portion thereof, of claim 77, wherein the detectable label is selected from the group consisting of:

- a) an enzyme;
- b) a prosthetic group;
- c) a fluorescent material;
- d) a luminescent material;
- e) a bioluminescent material; and
- f) a radioactive material.

79. (New): The antibody, or portion thereof, of claim 72, wherein the antibody is conjugated to a therapeutic moiety.

80. (New): The antibody, or portion thereof, of claim 79, wherein the therapeutic moiety is selected from the group consisting of:

- a) a cytotoxin;
- b) a therapeutic agent; and
- c) a radioactive agent.

81. (New): An isolated antibody, or portion thereof, that specifically binds to a polypeptide selected from the group consisting of:

- a) a polypeptide comprising the amino acid sequence of SEQ ID NO:11; and
- b) a polypeptide encoded by the nucleic acid molecule of SEQ ID NO:10 or SEQ ID NO:12.

82. (New): The antibody, or portion thereof, of claim 81, wherein the antibody is selected from the group consisting of:

- i) a monoclonal antibody;
- ii) a polyclonal antibody;
- iii) a human antibody;
- iv) a humanized antibody;
- v) a chimeric antibody; and
- vi) a murine antibody.

83. (New): The antibody, or portion thereof, of claim 81, wherein the portion is a F(ab) fragment or a F(ab')<sub>2</sub> fragment.

84. (New): The antibody, or portion thereof, of claim 81, wherein the antibody binds to amino acid residues 463-732 of SEQ ID NO:11.

85. (New): The antibody, or portion thereof, of claim 81, wherein the antibody binds to amino acid residues 26-753 of SEQ ID NO:11.

86. (New): The antibody, or portion thereof, of claim 81, wherein the antibody is detectably labeled.

87. (New): The antibody, or portion thereof, of claim 86, wherein the detectable label is selected from the group consisting of:

- a) an enzyme;
- b) a prosthetic group;
- c) a fluorescent material;
- d) a luminescent material;
- e) a bioluminescent material; and
- f) a radioactive material.

88. (New): The antibody, or portion thereof, of claim 81, wherein the antibody is conjugated to a therapeutic moiety.

89. (New): The antibody, or portion thereof, of claim 88, wherein the therapeutic moiety is selected from the group consisting of:

- a) a cytotoxin;
- b) a therapeutic agent; and
- c) a radioactive agent.